



KEYNSHAM

RURAL DISTRICT COUNCIL.

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ANNUAL

REPORT

OF THE

MEDICAL OFFICER OF HEALTH  
FOR THE YEAR 1913.





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17, WHITELADIES ROAD,  
CLIFTON, BRISTOL.

*January, 1914.*

*To the Keynsham Rural District Council.*

GENTLEMEN,

I beg to present for your consideration my Annual Report for the year 1913, dealing with the sanitary history of your district during that period.

**Character, Configuration, Geology, and Occupation.**—The description of these matters given in the 1894 Report may be taken as practically applicable to the year now under consideration. New houses are constantly in course of erection, chiefly in the Parishes of Brislington and Keynsham, although some are from time to time built in the more rural parishes, particularly in Saltford and Whitchurch. The number of new buildings completed this year (17) is practically the same as those in 1912 (19). The general character of the occupations of the inhabitants has practically undergone no change.

### **Sewerage and Excrement Disposal.**

BRISLINGTON.—The sewerage system (present length about  $4\frac{3}{5}$  miles) has continued to work satisfactorily; flushing has been regularly carried out, and the syphons under the brook have been cleansed four times during the year.

KEYNSHAM.—The whole of the system so far laid (about  $4\frac{3}{4}$  miles) has worked well and caused no trouble. By far the greater part of the general scheme of sewerage for the town is now completed. The old sewer in Albert Road, which passed under part of the backs of the houses and was in very bad condition, is being replaced by a new sewer at the back of the houses and clear of them. It will be completed early in 1914. An extension of the sewer in Avon Mill Lane (about 300 yards) has been completed.

SALTFORD.—No complaint of or trouble from the sewers here existing has arisen during the past year.

WHITCHURCH.—The dry privy system in use in this village has worked satisfactorily, and no complaint has arisen. Whether, as building here progresses, the present system will be found to meet requirements is doubtful.

**NEWTON-ST.-LOE.**—The sewers laid in this village in 1903 have worked satisfactorily, and no complaint has arisen.

Improvement in the matter of excrement disposal in the smaller villages and more rural parts is of slow growth, though greater progress is now being made, thanks to the Housing and Town Planning Act. Efforts to replace cesspit privies by other and better arrangements, such as dry privies, are continued, and during the past twelve months 11 new ones have been constructed and 6 converted from cesspit privies. Ten new W.C's have been made, and repairs (new pans, &c.) carried out in 15 W.C's.

**Bath Sewerage Scheme.**—Work in connection with this scheme has been continued during the year, and an eye is being kept on the dwellings erected for workmen, especially as regards excrement disposal and water supply.

**House Drainage.**—Plans for the drainage of all new buildings have to be passed by your Surveyor or Inspector before the drains are constructed, and the drains are tested before being covered in. In the more urban parts of Keynsham and Brislington the drains in connection with new buildings have been inspected and connected with the sewers, and all these buildings have W.C's. In the rural parts 6 drains have been repaired or cleansed, 4 relaid with pipes, 10 trapped or ventilated, 21 new pipe drains have been laid, 10 new W.C's provided, and 17 dry privies constructed.

**Scavenging.**—Periodical removal of refuse twice a week, under contract, has been continued in Brislington and Keynsham during the past year; street watering is also carried out here during the summer.

No change in the method of disposal of refuse matter from that of previous years has taken place in the rest of the district.

**Water Supply.**—During the year 10\* old houses and 1\* new house were supplied with Company's water. Twenty-six samples were bacteriologically examined at the County Health Laboratory. The results of these examinations are given under the headings of the parishes from which they were taken.

**CHEWTON KEYNSHAM.**—The West Gloucester Co's. supply to this village continues satisfactory.

**KEYNSHAM.**—Eight wells in this parish were analysed, of which 5 were polluted and unfit for drinking purposes, and 3 were classed as "satisfactory." In the case of the polluted wells the owners were requested to close the wells and provide a supply from the public mains, save in one instance where no main was near the property.

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\* This figure does not represent the whole number of new houses in the district supplied this year with Company's water, but only those in the portion of the district to which the Urban Building Bye-laws do not apply; where the Bye-laws are in force water mains exist, and all new houses have Company's water.



A sample of West Gloucester Co.'s water taken from a tap in Keynsham was reported to be quite satisfactory, and to show no evidence of any contamination.

BRISLINGTON.—One well analysed was reported polluted and the owner was requested to close it and provide a proper supply. Two other wells were found satisfactory.

WHITCHURCH.—The West Gloucester Co. partly supply this village, but there are many wells remaining.

PRISTON.—The public supply was analysed in December and “no evidence of contamination” was found.

In April, 1911, I reported that the public supply for this village was good, but not sufficiently accessible to the inhabitants, and that the supply could be rendered reasonably available by the provision of two or three more taps.

I believe the owner was communicated with upon the matter, but I am not aware that up to the end of 1913, about  $2\frac{3}{4}$  years, any improvement had been made. The matter should not be lost sight of, and your Council might enquire whether the owner intends to take any steps towards extending the supply. The Inspector reports that the distance some users have to go is as much as 200 yards. An extended supply is required and should be provided.

Some of the houses are so far from the taps that they might be considered unfit for habitation as having no water supply.

**Marksbury.**—As shown in previous reports the whole water supply of this village is polluted; samples taken from the spring and all the wells proving bad. The matter has been left over from 1911, endeavour being made in the meanwhile to find the source of the pollution of the spring. One source was proved. Steps were taken to remedy the faulty conditions as far as possible, and some months were allowed to elapse before a further sample was taken in June, 1913. The report on this sample was to the effect that the water “still shows evidence of contamination,” and I advised the Council that “considering the number of samples which have shown contamination under all circumstances, and the apparent failure of what has been done to improve matters, I think your Council will see the necessity of at once proceeding to secure provision of a pure supply for the whole village.” A copy of this report was ordered to be sent to the gentleman who owns practically the whole village and the matter again stood over, further analysis being asked for after a longer time had been given to test the efficacy of what had been done to remove the one proved source of pollution.

Examination of the water was again made in September, with the result of once more finding “marked evidence of contamination,” and I presented the following report:—“For your information I have made the following Table, showing the result of all the bacteriological analyses made:—

	DATE	REPORT.	TOTAL SAMPLES TAKEN.
Spring itself ...	Nov., 1911	Contaminated, not fit for drinking.	7 { 1 not "harmful." 6 contaminated.
„	April, 1912	No evidence of harmful contamination.	
„	June, 1912	Marked contamination, quite unfit for drinking.	
„	June, 1913	Still shows evidence of contamination.	
„	Sept., 1913	Marked evidence of contamination.	
Dipping-place	Aug., 1911	Evidence of some contamination.	
„	Nov , 1911	Contaminated, not fit for drinking.	

The samples for the above analyses have been taken under varying conditions as to rainfall and drought during a period extending over more than two years, yet on only one occasion has the report not shown definite and, generally, marked contamination. The two last samples were collected after steps had been taken to deal with one proved source of pollution, and both have been bad, showing either that what has been done has not been effectual, or, as is practically certain to be the case, that there is more than one source of contamination.

I think no further evidence as to the quality of this water is required, and I see no use in taking further samples." . . . .  
 "The matter calls for action, but it is for your Council to decide what that action is to be."

It was determined to wait for the result of analysis of a sample taken for the owner at the same time as that sent by you to the County Laboratory. When the owner's report came to the Council it was found to be a chemical analysis, showing practically no chemical contamination, and I pointed out that this chemical analysis was not comparable with the bacteriological examinations; also that it is quite possible to have a water which chemical analysis would pass, but which bacteriology would condemn on account of the nature of the organisms present. The Council decided to ask the owner to obtain a bacteriological analysis for comparison with their results. I understand he promised to do so, but so far I have not heard that the result has been sent to the Council.

There the matter rests, but the question is really one of importance and should not be allowed to stand over indefinitely. It is, however, one of considerable difficulty. The idea of obtaining a supply from the Clutton Council's mains appears to be impracticable, and the only alternative seems to be to find another spring not far from the village and conduct the water thither in iron pipes. There are hills not far away, and it is quite possible that search there might result in success.

CORSTON.—In the ordinary course of analysing the public village supplies a sample was taken from the lowest tap in the



village and the report on it was to the effect that “the results are quite unsatisfactory and show evidence of some contamination further samples from this supply are desirable.” The above report was quite unexpected, especially as a sample taken in March, 1912, was said to show no evidence of any contamination. The advantage of periodical examination of public supplies is well illustrated by the results of these two samples. I advised the Council that the source of contamination must be found and removed, and that, to localise as far as possible, the point of fouling, samples should be taken from the spring and tank, and from the three taps. This was done in February, and the water from the tank and the first tap was found to be good, that from the next tap slightly polluted, and that from the third tap markedly polluted. It was satisfactory to find that the water was pure at the source. It seemed that contamination must occur between the first tap and the point where the pipe divides to supply the one (No. 2) in Bath Road and the one by the Post Office (No. 3), and it was thought to be possibly due to disturbance of the road in laying gas and water mains. The pipe, which is iron, was opened up, but no fault in pipe or joint was found, and samples taken in March from the taps showed no contamination at tap No. 2 and considerably less at tap No. 3 than on the previous occasion. A further sample taken in September from tap No. 3 gave quite as bad a result as in February, and I then reported that “it is difficult to account for the contamination at this tap only; possibly there is a fairly long dead end of pipe, beyond the tap, which has become foul and requires cleansing. If this is not the case, or if, after cleansing, another sample still shows contamination it will be advisable to open up the pipe backwards from the tap with a view to finding a possible fault. The nature of the contamination (*bacillus coli*) is such that every effort should be made to remove it. The agent was requested to open up the end and remove it and to have the pipes flushed periodically.

**SALTFORD.**—Is partly supplied by the West Gloucester Water Co. and partly by wells.

**BURNETT.**—This supply was analysed in December and found to be quite satisfactory. The provision of a new ram has improved the supply.

**KELSTON.**—Supplied partly by a piped spring and partly by wells. Analysis of the spring water taken from the fountain in November showed it to be “unsatisfactory for a water of this class.” It was determined to take samples from the springs and if they were found good to open up the pipes and seek for faults.

**NORTHSTOKE AND SWINFORD.**—Analysis of this public supply in November gave a satisfactory result. At Northstoke more taps are required. Swinford is now fairly well provided.

**QUEEN CHARLTON.**—Cottage supply not yet satisfactory. A beginning has been made in extending the piped supply.

**STANTON PRIOR.**—Supply good and fairly convenient for users (piped supply).

NEWTON ST. LOE.—Piped supply good. The extra stand pipes required are not yet provided.

COMPTON DANDO.—Supply cannot be considered good, as, except at some of the farms, nearly the whole population is dependent on wells, dry-walled and liable to pollution from gardens, and often from sewage. It would be easy to find sufficient water to supply the place but it would be an expensive matter as the houses are very scattered. Still, a public supply would be a great advantage.

From the above it will be gathered that the public supplies in the villages, except Corston and Kelston, are good as far as they go, but require extension. The populous town of Keynsham is supplied by the West Gloucester Water Company and a few wells. Brislington Village is partly served by the Bristol Waterworks Company, partly by West Gloucester Water Company, and some wells.

### Statistics.

Area of District, 21,406 acres.

Population (census 1911), males, 4,846 ; females, 5,295, total, 10,141.

Population (estimated to middle of 1913), 10,617 (53 weeks, 10,820).

Inhabited houses (census 1911), not yet known. Separate occupiers = 2313.

Average number of persons per house, not yet known.

#### RATES, 1913 :—

Net Death Rate (standardised)	...	...	9·69
Net Birth Rate (standardised)	...	...	14·33
Epidemic Disease Rate	...	...	0·55
Infant Mortality Rate	...	...	68·18

The DEATHS (from all causes) belonging to your own population, occurring during the year, were 120, compared with 109 in 1912, 121 in 1911, 118 in 1910, 126 in 1909, 144 in 1908, 139 in 1907, 129 in 1906, 134 in 1905, 134 in 1904, 81 in 1903, 128 in 1902, 114 in 1901, 120 in 1900, 120 in 1899, 122 in 1898, 117 in 1897, 144 in 1896, 132 in 1895, 85 in 1894, and 119 in 1893.

This number, 120, is arrived at by excluding deaths of non-residents, and including those of members of your population occurring in public institutions outside your district. These 120 deaths amongst the estimated population for 53 weeks give a *Death Rate* (standardised) of 9·69 for the year. This rate was 10·48 in 1912, 11·83 in 1911, 12·69 in 1910, 13·72 in 1909, 15·58 in 1908, 15·64 in 1907, 14·82 in 1906, 15·01 in 1905, 15·32 in 1904, 9·05 in 1903, 13·78 in 1902, 13·01 in 1901, 14·58 in 1900, 14·37 in 1899, 14·83 in 1898, 14·34 in 1897, 18·09 in 1896, 16·61 in 1895, 11·5 in 1894, 16·19 in 1893, 16·39 in 1892, and 17·82 in 1891.



The Death Rate of 9.69 is much below the average for the preceding ten years, viz. : 13.42. It is the lowest rate since 1903, and 2 below that for England and Wales, less the 241 towns, which is 12.1.

The following table gives the average number of deaths from various classes of disease for the ten years, 1903 to 1912 inclusive, also the average number of persons dying at certain age periods, during the same ten years. Beneath these averages are placed the actual numbers dying from the same causes, and at the same age periods during 1913 :—

AVERAGE OF TEN YEARS, 1903 TO 1912.	DEATHS FROM					DEATHS			
	Bronchitis, Pneumonia, Pleurisy, etc.	Heart Disease.	Pulmo- nary Tuber- culosis.	Epidemic Diseases.	All other causes.	Under 1 year of age.	Under 5 years of age.	Between 5 and 65 years of age.	Over 65 years of age.
	15.4	21.9	6.4	5.7	66.8	19.3	25.5	44.5	53.7
1913	16	19	8	6	70	12	15	48	57

From the first half of the above Table it will be seen that in each class the deaths are about the average, except in the case of those from Pulmonary Tuberculosis and all other causes, in which classes there is a slight excess. The deaths from Pulmonary Tuberculosis, which for some years showed a decline, had, in the four years prior to 1907, risen above the average, and the number of deaths to 8 in 1904, 1905, and 1906; there was a slight decline in 1907 and 1908 which was not maintained during 1909, when the number of deaths (9) was the highest for ten years; during 1910 the deaths again fell below the average, and the fall is maintained up to the end of 1912; in 1913 there has again been a slight increase. The second half of the table shows deaths below the average up to 5 years of age and above the average in the higher age groups.

The BIRTHS registered during 1913 were 118, as compared with 205 in 1912, 222 in 1911, 213 in 1910, 213 in 1909, 212 in 1908, 241 in 1907, 238 in 1906, 223 in 1905, 249 in 1904, 222 in 1903, 221 in 1902. Five births occurring in the district among visitors have to be subtracted: the net births belonging to your population are thus seen to be 176, 27 less than in 1912.

The *Birth Rate* (standardised) for the year, reckoned on the 176 births, is 14.33 per 1000 living, and is the lowest on record for the past 20 years. This rate was 19.51 in 1912, 21.29 in 1911, 22.91 in 1910, 23.20 in 1909, 22.95 in 1908, 26.91 in 1907, 26.93 in 1906, 25.55 in 1905, 28.89 in 1904, 26.09 in 1903, 25.81 in 1902, 20.85 in 1901, 25.32 in 1900, 29.54 in 1899, 26.32 in 1898, 29.23 in 1897, 30.11 in 1896, 28.50 in 1895, 28.73 in 1894, and 28.30 in 1893. The average Birth Rate for the ten years, 1903 to 1912, is 24.31, and the rate for 1913 (14.33) is thus seen to be very considerably below the average for your district, and also that for England and Wales, less the 241 towns, which is 22.2.

EPIDEMIC DISEASES caused 6 deaths, viz. : 2 from Diphtheria and 4 from Measles. These deaths are equivalent to an *Epidemic Disease Rate* of 0·55 per 1000 for the year. The average rate for the ten years, 1903 to 1912, is 0·67, so that the rate (0·55) for 1913 is below the average. There have only been 3 deaths from Enteric Fever during the past seventeen years.

INFANT MORTALITY.—Twelve children died under one year of age. These 12 deaths give a *Rate of Infant Mortality* of 68·18 per 1000 births. This rate was 73·17 in 1912, 67·55 in 1911, 122·06 in 1910, 70·42 in 1909, 122·64 in 1908, 70·53 in 1907, 117·64 in 1906, 130·04 in 1905, 116·46 in 1904, 63·06 in 1903, 85·97 in 1902, 104·46 in 1901, 94·23 in 1900, 112·61 in 1899, 76·14 in 1898, 91·74 in 1897, 96·49 in 1896, 94·78 in 1895, 70·75 in 1894, and 91·34 in 1893. The average rate for the ten years, 1903 to 1912, is 95·38, so that the figure for 1913 (68·18) is greatly below the average for your district. It is also considerably below that for England and Wales, less the 241 towns which is 96.

Appended to this report are the tables I., II., III., and IV., required by the Local Government Board.

Table I. shows the estimated Populations, Birth rates, Death rates, Infant Mortality rates, Deaths in Public Institutions, Deaths of non-residents, and other information, for the years 1908 to 1913.

Table II. shows the number and character of cases of Infectious diseases, including Tuberculosis, notified during the year, and the number of such cases removed to Hospital.

Table III. is a Table of deaths from all causes (omitting those of non-residents), classified according to diseases and ages at death.

Table IV. is a Table which deals with Infant Mortality under one year, and states the causes of death, by weeks and months up to one year.

### **Epidemic (Infectious) Disease.**

**Notifications.**—Smallpox 0, Cholera 0, Diphtheria and Membranous Croup 48, Erysipelas 3, Scarlet Fever 58, Typhus Fever 0, Enteric Fever 1, Relapsing Fever 0, Continued Fever 0, Puerperal Fever 0, Cerebro-Spinal Meningitis 0, Poliomyelitis 0, Plague 0, Tuberculosis 34. Total 144.

The notifications of epidemic disease (excluding Tuberculosis) during 1913 (110) though considerably less than those in 1912 (142) are much above the average for the district. During the last ten years the notifications have varied greatly from year to year between a maximum of 142 and a minimum of 19: the average for the last ten years is 65·0, so that the number of notifiable infectious cases (excluding Tuberculosis) in 1913 approaches twice the average.

The large number of notified cases is due chiefly to the continuance of the epidemic of Diphtheria at Brislington which lasted



till the middle of the year, but also partly to a greater prevalence of Scarlet Fever, 58 cases in 1913 as compared with 22 in 1912. With the exception of the epidemic of Diphtheria alluded to above and described later, there has been no approach to any epidemic prevalence of notifiable infectious disease, though there have been one or two small groups of Scarlet Fever cases. Measles, Whooping Cough, Mumps and Chickenpox have, however, been prevalent in certain parts of your district and have called for special measures of warning to parents, exclusion of scholars from school, and in several instances closure of schools by the Education Authority on account of diminished attendance.

**Smallpox.**—No case notified. Owing to the practical absence of this disease from the country, there has been no need to carry out special medical examination of tramps as was done in 1909, and some previous years.

**Vaccination.**—In a report of the County Medical Officer made in 1911 the percentage of children in Keynsham district unvaccinated is shown to have steadily risen from 14·5 in 1905 to 32·3 in 1908 and 29·1 in 1909.

I have received particulars from the Vaccination Officer, from which the following Table is compiled, carrying on the figures as to vaccination from 1909 up to the end of 1913.

Year.	Births.	Successfully Vaccinated.	Conscientious Exemptions.	Died Unvaccinated.	Percentage of Unvaccinated.	Percentage of Vaccinations to Births.	Percentage of Exemptions.
1910	226	137	46	23	29·4	60·6	20·3
1911	222	103	82	12	53·7	46·3	36·4
1912	205	101	79	10	50·8	49·2	35·6
1913	186	65	74	10	65·1	34·9	39·7

From the above Table it appears that in 1910 the percentage remaining unvaccinated was practically the same as in 1909; but in 1911 the number of Exemptions nearly doubled as did also the percentage remaining unvaccinated, and this percentage has been maintained. The percentage of 65·1 for 1913 is considerably in excess of that for 1911 and 1912, but will probably be somewhat reduced when it is finally known whether the children born towards the end of the year will be vaccinated or not. Speaking generally the Table may be said to show a steady and great falling off in infant vaccination and an equally steady rise in the number of Exemption certificates granted.

It is impossible to view the above figures without serious misgivings. There is no doubt that efficient vaccination is the one protection against smallpox, and the fact that the number of unvaccinated among your population is steadily and rapidly increasing raises grave fear as to what may happen if once smallpox, when introduced into the district, gets out of hand. Should it do so there can be little doubt that a heavy toll will be taken from among these unvaccinated children. Every grown-up person



can protect himself against smallpox, if he chooses, but these unfortunate children have no voice in the matter, and it is upon them that the full force of an epidemic would fall, causing terrible suffering and mortality.

This increasing neglect of vaccination is practically universal throughout the country, and sooner or later there is no doubt the country will have to pay dearly for it.

**Cowpox.**—On 12th August your Inspector informed me that several milking cows on a farm at Keynsham were suffering from sores upon the teats and that two milkers also had similar sores on their hands. I at once visited the farm and found several of the cows with sores on the teats closely resembling those of “casual cowpox.” I also saw one of the affected milkers who had a sore between the fingers strongly suggestive of cowpox: the other affected milker was away on account of his health. The farmer was warned not to allow the milk of any affected cow to be in any way used for human consumption, and the circumstances were reported to the Local Government Board. Enquiry was made by them, and the result of certain tests carried out with material from the sores confirmed the view that the disease was true “casual cowpox.” Several other cows became affected but no other milker suffered after instructions had been given as to precautions necessary to be taken during milking. The origin of the outbreak could not be ascertained. No history of similar illness in cows anywhere near could be found. Only two cows had recently been bought by this farmer; I was assured that they were perfectly sound when they reached the farm, they were not the first to suffer, and I understand no sores on cows’ teats had occurred at the two farms from which these cows were purchased.

**Scarlet Fever.**—The drop in cases of this disease, which commenced in 1904, continued steadily up to the end of 1907, but since that year the tendency has been towards an increased prevalence as seen from the following :—

Cases notified in	1903	...	58
„	1904	...	47
„	1905	...	40
„	1906	...	9
„	1907	...	6
„	1908	...	8
„	1909	...	16
„	1910	...	17
„	1911	...	6
„	1912	...	22
„	1913	...	58

This shows three years of high prevalence, followed by three of low prevalence, and then four of slightly increased prevalence, corresponding to an increase in the young unprotected population, and ending in 1913 in a greatly increased prevalence though not of an epidemic character. Curiously enough the cases notified

this year exactly equal those notified in 1903 when the top of the wave occurring about that time was reached. It thus appears that in your district extended prevalence of Scarlet Fever tends to occur at ten-yearly intervals and the wave to last about four years. The increase of cases this year coincides with a very wide-spread occurrence of mild Scarlet Fever in the City of Bristol with which your district is in part actually continuous. Scarlet Fever has also, I understand, been prevalent in other adjoining districts.

The 58 cases were distributed as follows :—

1st Quarter :—16 cases, of which 13 were in Keynsham Parish. 11 families were affected, but in only two was there more than a single case. The remaining cases were in Brislington, one in one family and two in another.

2nd Quarter :—5 cases, of which 4 were in Keynsham Parish, two in one family, the others single cases. One case was probably imported from Bristol. The fifth was at Saltford and imported from Bristol.

3rd Quarter :—13 cases. All these, save an isolated imported case at Brislington, occurred at Keynsham. One of these was the sister of a case arising in June last who had been nursing her brother. There were single cases in six other families, two in a seventh, and three in an eighth family. Practically the whole of the cases during this quarter were due to importation. In one instance four children who all went to a school treat at Weston sickened practically simultaneously ; another probably contracted the disease in Bristol ; and there was another group of six cases among near neighbours, the first a boy who had recently come to Keynsham.

4th Quarter :—24 cases, of which 14 were in Keynsham, 3 in one family, 4 in another, 3 in another, 2 in another, and single cases in two others. Ten were in Brislington, 5 in one family, and single cases in five others.

From the above it will be seen that 57 out of the 58 cases arose in the practically urban parts of Keynsham and Brislington near Bristol and only one in a rural village. Thirty-nine families in all were affected, in 28 of which a single case only occurred.

One case was removed from the Workhouse to Warmley Isolation Hospital, but it was not till nearly the end of September that Keynsham Hospital, which had up to then been in use for Diphtheria, became available for Scarlet Fever. From that time to the end of the year 18 cases were admitted.

The type of the disease has been generally mild and there has been no death.

**Diphtheria and Membranous Croup.**—In this disease, as in Scarlet Fever, the number of notifications had fallen greatly during 1906, 1907, and 1908, when 9, 8, and 4 cases only were respectively notified. In 1909 there was a local outbreak at Corston with 42 notifications, there being only 6 others in the rest of the district. In 1910 and 1911 the cases fell again to 5 and 2



respectively ; but in 1912 a local outbreak occurred at Brislington resulting in 104 notifications (cases 47, "carriers" 57). This local prevalence extended into 1913. There were only 4 other cases in the whole district in 1912. In this connection it is interesting to compare the number of cases notified during five-yearly periods between 1891 and 1911 ; these are given below :—

DIPHTHERIA NOTIFICATIONS FROM 1891 TO 1910.

Year	No. notified	Total in 5 years
1891	0	} = 3
1892	1	
1893	1	
1894	1	
1895	0	
1896	2	} = 17
1897	1	
1898	3	
1899	5	
1900	6	
1901	81	} = 181
1902	23	
1903	17	
1904	32	
1905	28	
1906	9	} = 74
1907	8	
1908	4	
1909	48	
1910	5	
1911	2	
1912	108	

From the above it will be seen that from 1891 to 1895 (and indeed from 1887 to 1895) Diphtheria was practically unknown in your district. During the succeeding five years there was for the first three no marked increase, but during the two latter its occurrence became more frequent, corresponding to the more numerous cases in the County of Somerset. The next five years stand out in marked contrast to the previous ten, showing in every year, but especially in the first of the five, a considerable participation in the general wave of Diphtheria which prevailed during this period over this part of the country.

Consideration of the figures in the above Table for the years 1906 to 1912 seems to show that, unless some special localised



outbreak such as occurred at Corston in 1909 and Brislington in 1912 arises, the average number of cases to be expected yearly is about five.

**Diphtheria at Brislington.**—As previously stated, the epidemic which commenced in 1912 persisted in a greater or less degree in 1913 and it was not till July 4th that the last case was notified. Since that date not a single notification of this disease has been received from Brislington.

The history of the epidemic in 1913 up to 4th April may be gathered from the following Special Report to the Local Government Board :—

“SPECIAL REPORT  
TO THE  
LOCAL GOVERNMENT BOARD  
ON  
DIPHTHERIA AT BRISLINGTON,  
*1st Nov., 1912, to 4th April, 1913.*”

The Special Report previously presented covered the period of this outbreak up to Oct., 1912. The further prevalence up to 31st Dec., 1912, is dealt with in my Annual Report for 1912, to which I beg to refer you.

From 1st Jan. to 9th April, 1913, the number of persons notified as suffering from Diphtheria is 32. Of these 32 persons 8 were ‘contacts’ discovered by bacteriological examination of the other members of affected families; leaving 24 ‘cases.’ Of these 24 two (Nos. 27 and 39) were bacteriological negatives; one (No. 36) was decided at the Ham Green Hospital (Bristol) not to be Diphtheria; two (Nos. 13 and 46) had been cases in 1912 (? remained as ‘carriers’); and one (No. 43) was a ‘carrier’ in 1912, probably remained so in spite of treatment, and infected her child (No. 29). In two instances children who had been under treatment as ‘suspects’ (carriers of free growth of Hofmann) later developed into marked Loeffler cases, and one (No. 44) infected her sister (No. 48) who had not been a ‘suspect.’

I have prepared a Table (attached) giving the notifications in 1913 with certain information as to each. They are arranged in family groups bracketed together. Three of these families, accounting for 9 notifications, were families in which cases had occurred some time during 1912, and two of them appear to contain chronic diphtheritics.

From consideration of the Table it will be seen that there has never been any special incidence on any particular class in the school, but there has been special incidence on certain streets which adjoin one another; the only cases out of this immediate area being the one at Church Hill, that at the Vicarage, and the two negative ones at Linton Farm and School Place. This supports the suggestion, made in my previous report, that the spread is due to promiscuous mixing at home and in the streets rather than to school attendance.

The steps taken to deal with the disease still remain the same as stated in my previous report, with the exception of the Surgery and Nurse.

The Surgery was closed on 30th Nov., 1912, when apparently the disease was no longer acutely threatening, only a few patients remained under treatment there, and it was considered that these might be visited and treated at home by the Nurse. This home treatment by the Nurse was continued up to 19th Jan., when, there being only three persons under treatment, her services were dispensed with, and these three, with other 'suspects' coming under observation later, were handed over for treatment to their medical men.

**Removal to Hospital.**—From the Table it will be seen that 26 out of the 32 persons notified were removed, and that adequate reasons existed for the non-removal of the other six.

My report to the District Council on 1st April contained the following :—‘I do not think your Council can do more than it has done, and is doing, unless you are prepared to undertake a house to house inspection and routine bacteriological examination of all the inmates with a view to the detection of ‘carriers’ and ‘suspicious’ cases, and their treatment till free from suspicion. This would be a very costly proceeding, would take a long time to carry out, would necessitate a special staff to do the work, and, I fear, would very possibly fail to effect the desired end, for it must be remembered that you have no compulsory power to take swabs from persons, and, very likely, those who refused would be the very ones who were unknowingly those you wished to detect. Brislington is practically part of a city, with a city, and not a country, population ; and the habits of the population are such as to favour persistence of infection and its transference. The disease will behave here as it does in cities ; that is to say, there will not be a sharp outbreak and then a disappearance of the trouble ; it will tend to persist, occasional fresh families being affected from time to time, specially any new-comers ; and it is quite possible that this condition of affairs may continue for a year or two, in spite of any practical steps which can be taken to deal with it.’

The above expresses my opinion. The infection is probably so widely spread, in form unrecognisable save bacteriologically, that the disease will only cease by gradual immunisation of the population. Meanwhile steady persistence in the measures being taken, and which I shall advise be continued, may gradually help in its suppression.

I may add that in Nov., 1912, Dr. Savage, County M.O.H., visited Brislington, inspected the Surgery, and interviewed me on the outbreak ; and I have, on more than one occasion, consulted Dr. Davies on the advisability of special measures for dealing with diphtheria cases in the Brislington portion of Bristol ; he, however, did not consider such called for, and I agreed with him.”



# DIPHTHERIA AT BRISLINGTON, 1913 (to 9th April).

Notification No.	Address	Age	Date of Notification	Case	Contact	School	Removed to Hospital	Cause: Remarks
1	50, Manworthy Rd.	8	3 Jan.	"suspect" to case	...	School closed	Yes	...
2	"	5	3 Jan.	case	...	"	Yes	...
4	"	9	5 Jan.	case	...	"	Yes	Probably No. 1.
13	"	13	22 Jan.	"carrier"	...	Brislington ...	Yes	Probably "carrier" since 1912, only returned to Brislington after brother's removal.
8	37, Pendennis Rd....	9	15 Jan.	case	...	Wick Rd., Bristol ...	Yes	...
9	4, Grove Rd.	12	16 Jan.	case	...	Brislington S.V. ...	Yes	...
10	"	5	19 Jan.	...	contact	Brislington Inf. ...	Yes	...
11	"	9	20 Jan.	...	contact	Brislington S.III. G. ...	Yes	Probably No. 9.
14	14, Grove Pk. Avne.	11	19 Jan.	case	...	Wick Rd., Bristol ...	Yes	Case in same class.
15	"	3	21 Jan.	...	contact	Nil ...	Yes	Probably No. 14.
16	"P. Pk. Avne.	8	24 Jan.	case	...	Wick Rd., Bristol ...	Yes	...
20	31, Pendennis Rd....	5 to 15	3 Feb.	case	...	Brislington S.IV. ...	Yes	...
21	40, Grove Pk. Rd.	4	4 Feb.	case	...	Nil ...	Yes	...
22	"	25 to 45	7 Feb.	...	contact	Nil (mother) ...	No (mother, and beds short)	Supposed to have treatment at home.
23	70, Pendennis Rd....	9	7 Feb.	case	...	Brislington S.III. B. ...	Yes	...
24	5, Grove Pk. Avne.	7	10 Feb.	case	...	Brislington ...	Yes	...
33	"	40	5 Mar.	...	contact	Nil (mother) ...	No (refused): supposed to	have treatment at home.
25	18, Bellevue Rd. ...	3	12 Feb.	case	...	Brislington Inf. ...	Yes	...
44	"	6	27 Mar.	"suspect" to case	...	Brislington { last there 10/2/13	Yes	Developed from "suspect."
48	"	10	2 April	...	contact	"	Yes	Probably No. 44.
27	26, Montrose Avne.	10	14 Feb.	case	...	Wick Rd., Bristol ...	No (bacteriological negative)	These 3 belong to a family who were all "suspects" or "carriers" after a case in family in 1912.
28	3, Elm Tree Cott'ges	10	24 Feb.	case	...	Brislington ...	Yes	Probably case 43.
31	"	18	4 Mar.	...	contact	Nil ...	Yes	"Contact" in Dec., 1912, probably remained "carrier."
41	"	17	20 Mar.	...	contact	Nil ...	Yes	...
29	13, Bellevue Terrace	4	26 Feb.	case	...	Nil ...	No (refused: home treatment)	...
43	"	25 to 45	27 Mar.	case	...	Nil ...	No (refused: home treatment)	...
30	Church Hill	8	2 Mar.	case	...	Brislington S. II. G. ...	Yes	Decided at Hospital not to be Diphtheria.
36	Linton Farm	2½	6 Mar.	Membranous Group	...	Nil ...	To Children's Hospital and Ham Green, Bristol	...
37	16, Pendennis Rd....	5 to 15	17 Mar.	case?	...	Brislington S.VI. G. ...	Yes	Was "case" in 1912.
46	"	7	31 Mar.	case?	"carrier"?	Brislington ...	Yes	...
39	3, School Place	6	18 Mar.	...	case	Brislington S. II. ...	No (bacteriological negative)	...
49	The Vicarage	8	3 April	...	case	Nil ...	No (good home isolation) ...	...



From the beginning of April the disease continued to appear in a desultory fashion, fresh cases cropping up chiefly in previously affected families till 4th July when the last cases were notified. The following Table gives particulars of these later cases :—

### CASES FROM 9th April to 4th July.

Notifi- cation No.	Address	Age	Date of Notifica- tion	Case	Contact	School, &c.	Removed to Hospital	Cause : Remarks
52	7, Bellevue Terrace	10	14 April	case	...	Wick Rd., Bristol ...	Yes ...	Case 56 was one of a family in which there was a case and two + "contacts" in Dec., 1912. The rest of family were then all "suspects." Probably some one or more of this family remained infectious and may have caused case 56 this year, and possibly case 52. The whole family was again found suspicious in April, No. 58 especially so, and on later examination he was distinctly +.
{ 56	5, Bellevue Terrace	5 to 15	29 April	case	...	Brislington ...	Yes ...	
{ 58	"	3	20 May	"suspect" to case	...	Nil ...	Yes ...	
57	81, Wick Rd.	21	16 May	case	...	Works in Bristol ...	{ Not requisite	"Suspect" in Oct., 1912.
59	91, Wick Rd.	40	25 May	case	...	Housewife ...	Refused	
{ 60	21, Grove Park Rd.	9	7 June	case	...	Brislington S. III. B.	Yes ...	
61	"	12	10 June	...	contact	Brislington ...	Refused	
62	"	7	"	...	"	Brislington ...	"	
{ 63	"	43	"	...	"	Housewife ...	"	
64	"	4	"	...	"	Brislington ...	"	
65	"	10	"	...	"	Brislington ...	"	
66	"	14	"	...	"	Home ...	"	
69	Church Hill...	10	4 July	case	...	Brislington ...	Yes ...	
70	"	22	"	case	...	Home ...	Yes ...	

The total number of persons notified as suffering from Diphtheria in Brislington in 1913 was 46, as follows :—

Notifications ...	{	Cases, 32	{	Positive	..	28
			{	Suspicious	...	0
			{	Negative	...	4
	{	Contacts, 14	{	Positive	...	14
			{	Suspicious	...	0
			{	Negative	...	0
Removed to Hospital	32	{	Cases	26 (1 to Ham Green Hosp.)		
		{	Contacts	6		
Refused Removal	...	9	{	Cases	...	2
			{	Contacts		7
Removal not required	5					
						—
						46
Deaths, 2						—

There are one or two points of interest with regard to some of the cases ; for instance, four persons who were “suspects” developed into positive cases ; two were recurrent attacks in persons who had positive Diphtheria in 1912 ; and there was one instance of a nasal “carrier” who was notified in Oct., 1912, discharged from Hospital on negative throat and nose in Nov., 1912, and then went to stay at a village in an adjoining district without my knowledge, returning home in January. Cases of Diphtheria arising in that village while he was there were suspected to be due to him, and on hearing of this from the Medical Officer of Health the boy’s nose and throat were again examined and a free growth of Diphtheria found in the nose. He was again removed to Hospital, and from this time special care was taken not to discharge patients from Hospital till two consecutive negatives from both nose and throat had been obtained at a week’s interval.

There were only two other cases notified in the whole of the rest of the district, both in Keynsham, one was a bacteriological negative. There was no spread from these cases.

**Antitoxin.**—Under the Antitoxin order of the Local Government Board of 15th Aug., 1910, the Council has sanctioned the provision of Antitoxin gratuitously for use in cases where the people are too poor to obtain it for themselves, and have adopted certain suggestions made by me in a special report as to its storage and distribution. There are three depôts: one at Keynsham, which is reasonably accessible from about one half of the district, and the other at Corston which serves the other half, and one at Brislington, which was originally established to meet the requirements of the Brislington outbreak. The stock at each store has been renewed, the total units in hand being 56,000. The medical men practising in the district have been informed of the arrangements and supplied with forms of request for the supply of Antitoxin.

During the year the amount of Antitoxin used outside the Hospital was 34,000 units, all except 4,000 being used for Brislington cases. Units used in Hospital 36,000.

**Typhus Fever.**—No case notified.

**Enteric or Typhoid Fever.**—Only one isolated case was notified: a girl living at St. Anne's Park, Brislington, and working in Bristol. No special source of infection could be ascertained. Widal's test gave a positive result. The case recovered.

**Continued Fever.**—No case.

**Puerperal Fever.**—No case notified.

**Erysipelas.**—Three cases were notified, as compared with 10 in 1912, 6 in 1911, 6 in 1910, 9 in 1909, 12 in 1908, 4 in 1907, 13 in 1906, 8 in 1905, and 14 in 1904.

No special interest or importance attached to any of these cases.

**Acute Poliomyelitis and Cerebro - Spinal Fever.**—No case was notified during the year.

As an aid to detection of cases, or determination of the nature of suspicious cases, the Board advises that facilities should be provided for the examination by competent bacteriologists of material from the sick. I have ascertained that the Public Health County Laboratory will undertake this work without charge, for the present at all events.

**In all notified cases** full enquiry is made at the houses, and results reported to me. The usual precautions were taken. Printed instructions, stating the precautions necessary to avoid spread of infection, as well as notices requiring disinfection, were sent to the occupiers. Notices were also sent to Schools, requiring the exclusion of children from infected houses. The absence, bacteriologically, of the Diphtheria bacillus was ascertained before cases were considered free from infection. In all cases, except those of Erysipelas, thorough disinfection was carried out by your Inspector upon the termination of illness.

**Non-Notifiable Infectious Disease.**—In addition to enquiries in notified cases, your inspector has paid numerous visits to various houses and villages on account of cases of Measles, Whooping-cough, and Mumps, reported from Schools, and has left papers of advice to parents, and posted Public Notices as to these diseases in the villages affected.

**Measles.**—This disease was prevalent during the first quarter of the year, specially at Keynsham and Priston.

In January, 17 cases were reported by the teacher of Keynsham Infant School, and that School was closed by the County Education Authority for 3 weeks from 27th January.



At Priston School, 42 cases occurred: School closed by County Authority for 14 days from 7th of January, and again for 14 days from 15th February. The disease appears to have been introduced here from Dunkerton, outside your district.

At Compton Dando there were four cases.

At Saltford the disease was present during the Christmas holiday, and the holiday was extended by the County Authority to 20th January.

At Newton St. Loe, 10 cases were reported on 19th May, and the School was closed on 20th till 13th of June, by the County Authority. Again on 17th July, 7 cases were reported.

Measles notices were posted in the areas where the disease was prevalent.

**Whooping Cough.**—I have no information as to this disease.

**Chickenpox.**—Was present in Newton St. Loe in May, 4 cases occurring, and one other in July. At Whitchurch 3 cases were heard of in March.

**Mumps.**—Have been present at odd times during the year, a few cases occurring at Keynsham and Priston in January, Marks-bury in February, Whitchurch in March, and Compton Dando in November and December.

**Diarrhœa.**—Not a single death was ascribed to this cause despite the hot dry summer. This is the second year in succession that diarrhœa has caused no death.

The deaths in the last ten years, 1903 to 1912, have been respectively : 0, 6, 2, 3, 0, 3, 0, 0, 6, 0 ; Total 20, or an average of 2·0 per annum.

**Influenza.**—One death was registered from this disease, but I have no knowledge of its special prevalence during 1913.

**Ophthalmia Neonatorum.**—This disease is not notifiable in the district. In 1912 I reported on a letter of the Local Government Board with respect to the notification of the above disease, and on a communication from the County Medical Officer of Health upon the provision of skilled treatment for such cases when notified, and stated:—"Treatment should be carried out by trained nurses under medical supervision, and, as most of the cases occur among the poorer classes, it would have to be provided and paid for by your Council. I have no means of knowing how many cases arise in your district ; probably they are few. There are, however, no data upon which I can base an estimate of the necessity for notification, &c., or the cost of the scheme. There is at present no source within your district from which nurses can be obtained at a moment's notice. The difficulty and expense of

arranging for nurses from Institutions outside the district, with their travelling expenses, would be considerable, even if it could be arranged, and unless the County Council itself undertakes nursing arrangements, I do not see how the difficulty is to be met. It is, of course, obvious that notification without provision for treatment would be useless, and I therefore advise that a reply be sent to the effect that your Council does not at present see how local arrangements for treatment can well be made, and does not, therefore, propose the addition of this disease to those already notifiable, but that they are willing to reconsider the matter, should the County Council formulate a scheme for the supply of nurses."

Your Council instructed the Clerk to send a reply to the above effect to the County Council.

The question of notification again arose in the past year on a letter from the Western Counties' Union of Institutions, Societies, and Agencies for the Blind, and I drew the Council's attention to their resolution of 1912, and again expressed the opinion that I saw no use in notification unless prompt and efficient treatment could be provided, and that there did not appear to be any change in the conditions present in 1912. It was also pointed out that the County Council ought to receive prompt information of "inflammation of or discharge from the eyes, however slight" from the midwives and could therefore take action if they thought fit: and that cases occurring where a medical man was in attendance on the lying-in woman would naturally be attended to promptly. I believe a communication somewhat to the above effect was sent to the County Council.

### **Tuberculosis.—**

A detailed account of the steps taken by your Council to carry out the duties assigned them under the Public Health Tuberculosis Regulations, 1911, is contained in my Annual Report for 1911. I may here state shortly that satisfactory arrangements have been made to cover the points as set out under the following heads :—

- 1.—Bacteriological Examination free of charge.
- 2.—Provision of Sputum Flasks and Disinfectant.
- 3.—Means for detection of early or doubtful cases.
- 4.—Means for detection of Contact cases.
- 5.—Provision for Notification of Change of Address.
- 6.—Immediate information by the Registrar to me of any death from Phthisis.
- 7.—Disinfection.

Thirty-four primary notifications were received; 13 cases being males and 21 females. The following Table divides these cases into Pulmonary and other, and gives the age groups in which they occurred.



	0-1		1-5		5-15		15-25		25-35		35-45		55-65		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Pulmonary					1	2	2	1	6	8	1	3	1		25
Other ...	1			2	1	2		3							9

The above Table shows the usual heavy incidence on the 25 to 35 age group, and also seems to show a sudden cessation of cases other than pulmonary after the age of 25. It will be interesting to see whether future years show a similar cessation.

The distribution of cases was as follows :

Keynsham	...	...	...	...	16
Brislington	...	...	...	...	11
Corston	...	...	...	...	2
Compton Dando	...	...	...	...	2
Kelston	...	...	..	...	1
Whitchurch	...	...	...	...	1
Admitted to Workhouse from outside district					1

The greatest incidence of Tuberculosis is thus seen, as might be expected, to be upon the practically urban parts of Keynsham and Brislington, the really rural parts showing few cases.

The notified cases are all visited, and afterwards kept under observation by the Tuberculosis Visitor of the County Council, who, by arrangement with the County, acts for this purpose as an Officer of the District Council. Excluding primary enquiries 132 later visits for observation and advice were paid during the year. In three instances patients went to a Sanatorium for a period, and several attend the County Council Dispensary. Shelters were provided by the County Council in some instances, but there seems a good deal of difficulty in securing their use; in one case a wife persists in occupying the shelter with her affected husband; the case has been reported to the County Tuberculosis Officer.

Your Inspector also visits Tuberculosis cases from time to time, and several have been supplied with sputum flasks and with disinfectant as required.

Disinfection after death or removal of Tuberculosis cases is carried out by boiling at home all articles capable of being thus dealt with, removal of bedding, &c., to steam disinfector, spraying the whole room and furniture with Izal, and stripping and re-papering or recolouring walls where it appears to be required. Such disinfection has been carried out this year after every case of death and after 8 removals.

### Isolation Hospital.

The Hospital has been in use throughout the year. Cases admitted: Diphtheria, 26; Diphtheria and Scarlet Fever, 6; Scarlet Fever, 18. Total, 50.

It has proved extremely useful first in dealing with the end of the Diphtheria outbreak at Brislington and afterwards with Scarlet Fever. Fortunately the two diseases were not specially pressing at the same time, as the building is only capable of accommodating one disease.

The following report on the year's work has been furnished by the Hospital Medical Attendant :—

**Report for 1913.**—Admitted, 50 : Diphtheria, 26 ; Diphtheria and Scarlet Fever, 6 ; Scarlet Fever, 18. Discharged, 56. Died, 2.

Antitoxin was given frequently during the year, 36,000 units being used, and Pituitary Extract was given twice for collapse.

One Diphtheria case has become a chronic carrier from Otorrhœa after 4 months' stay in Hospital, which he left at his parents' request, being taken home in the ambulance by the nurse.

All the Diphtheria cases showed Paralysis, nasal and pharyngeal, and two of them were completely paralysed in all voluntary muscles for 14 days.

I wish to draw attention to the extra care and nursing entailed by the large number of dirty heads, and other avoidable conditions occurring in patients sent into Hospital, which constitute a distinct danger to other inmates not similarly affected : I allude more particularly to Pediculi, Scabies, Ringworm, and Impetigo ; this happened in 4 patients out of 5 sent in from one family.

One case of advanced Phthisis came in with Scarlet Fever.

I should like to remind the Council that this Hospital is now nearly 21 years old, the first patient having been admitted on 3rd July, 1893, and to call their attention to :—

(1).—The necessity of providing a bedroom for a second nurse, who at present has to sleep in the Ward.

(2).—The wisdom of providing a Bathing-out Room for discharging patients.

I cannot close without bearing my whole-hearted testimony to the unwearying devotion of Nurse Dyer, to whose skill the low mortality rate is principally due."

The above report is a very satisfactory one and reflects credit on the care and attention given to patients while in hospital, especially when it is remembered that during 1912 and 1913 no less than 83 Diphtheria cases were treated, most of them of a serious character, and that only 2 or 2·4 p.c. died, and that the facilities for nursing, &c., are not by any means ideal.



The question of Hospital accommodation certainly requires fresh consideration. As the medical attendant reminds your Council the present building is practically 21 years old ; it is of a temporary nature, was erected in a hurry to deal with an outbreak of Smallpox, and was not intended nor is it suited, to deal with the ordinary infectious isolation requirements of a district. There is only one ward block containing two wards ; only one disease can be isolated at a time with safety, and although improvements and additions in the way of wash-house, &c., have been made from time to time, the whole arrangements are more or less primitive and inconvenient. For instance, it is not right from any point of view that a nurse should have to sleep in the ward. The arrangements for discharge of patients are not all that could be desired. The building is structurally still in fair condition, but it cannot be expected to last many years longer.

Removal of patients is now constantly asked for, expected, and required, and will become increasingly necessary because Keynsham and Brislington are rapidly assuming an urban character, and before long infectious disease will probably become more or less endemic (constantly present) with occasional times of more or less epidemic prevalence, instead of occurring, as it used to when these places were more rural, in occasional outbreaks separated by periods of absence of disease. We now also much more frequently have times when both Scarlet Fever and Diphtheria require isolation simultaneously, which is impossible with the present hospital.

The number of beds to be provided should be at least 20, arranged so that two, or possibly three diseases can be dealt with at the same time, with proper administration, laundry and disinfecting block.

I would ask your Council to give this matter early and serious consideration.

**Steam Disinfector and Disinfection.**—This machine, which is situated at the Hospital, and is a Portable (so-called) Steam Disinfector, made by Goddard, Massey & Warner, has again proved of great value. During the year 1,136 articles have passed through the machine. Articles capable of such disinfection are boiled at home ; a large number were so dealt with.

Rooms are now disinfected with formalin or cyllin spray, which has replaced the old method of sulphur fumigation. In many cases, where rooms in old cottages have to be dealt with, the use of sulphur is almost impossible, as the fumes pervade the house. The new method is quite as, if not more, effectual, and certainly more comfortable to the inmates.

**Ambulance.**—Has been in frequent use and proved very efficient.

**Disinfecting Van.**—Has been in constant use, and has answered all requirements well.

**Bacteriological Examinations.**—The specimens examined this year though not reaching the highwater mark of 1912, when 925 were examined, still reached the respectable total of 722. The number in 1911 was 10, 73 in 1910, 461 in 1909, 53 in 1908, 67 in 1906, 200 in 1905, 302 in 1904, and 88 in 1903.

Of the 722 examinations all but one were for Diphtheria, the results in the positive notified cases being :—

Diphtheria found in throat only	...	19
„ „ nose only	...	16
„ „ throat and nose	...	7

In seven notified cases the results were negative.

One specimen of blood was submitted for examination by the Widal test and gave a positive result.

## HOUSING AND TOWN PLANNING ACT.

Inspection of houses under £16 rental has been continued during the year but has been greatly interfered with owing to the large amount of work entailed by infectious disease, and to your Inspector having had to do a good deal of work for other Officers during change of Highway Surveyor, and the holidays of Surveyor and Relieving Officer; he also acted for 14 weeks as Clerk of the Works for the new Albert Road sewer. The number of fresh houses inspected in 1913 is 74, making a total of houses inspected, since 1st February, 1911, of 531.

In addition to visits of first inspection, 316 re-visits have been paid to houses previously inspected, to see that repairs were being carried out.

The following Table **A** gives particulars of results of inspection under Section 17 of the Act asked for by the Local Government Board :—

**TABLE A.**

No. reported unfit for habitation, 1913	No. of representations made to S.A. with view to Closing Order	No. of Closing Orders made	No. of houses made fit after Closing Order was made	No. of houses where defects were remedied without Closing Orders
0	0	0	0	44

This Table **A** gives very few particulars, and no information as to the number of houses dealt with, of notices served, or of the character of the houses with regard to accommodation, overcrowding, and other particulars. Your Inspector has drawn up the following Table **B**, which gives much more extended information, and Table **C**, which gives particulars of action with regard to houses inspected since 1911 and reported to Council to end of 1913. Table **D** is a Table asked for by the County Medical Officer of Health.



TABLE B.

No. of houses in District under £16 per year rental, 1,723. PARISH.	No. of houses inspected, 1913.	No. requiring notices.	Reported to Council.	No-tices served under Sec. 91 P.H.A.	Sec. 15 H. & T.P.	Com-plied with.	No. of Occu-pants.	Statute adults, two children under 12 as one adult.	Bedroom accom-modation 300 ft. one stat. adult.	Hou-ses with 3 or more Bed-rooms	2 or less.	Bed-rooms with Fire-places	With-out Fire-places	Over-crowd-ed.	Piped Water Supply	Well or Spring
Brislington ...	18	18	18	7	11	15	97	73½	99	1	17	33	6	1	15	3
Keynsham ...	52	51	41	23	18	25	195	171	299	9	43	54	59	3	52	0
Whitchurch ...	4	4	4	4	0	4	23	15½	19	0	4	2	6	0	4	0
TOTALS ...	74	73	63	34	29	44	315	260	417	10	64	89	71	4	71	3

HOUSES INSPECTED IN 1911, 1912, and 1913.

REPORTED TO COUNCIL IN 1911, 1912, and 1913.

Notices complied with include houses for which notices were served in 1911 and since, and complied with in 1913.

**TABLE C.**

PARISH.	Re- ported to Council.	Notices served 91 P.H.A.	Notices served 15 H.&T.P. Act.	Notices complied with.	Notices partially complied with.	Repair'd without notice.
Brislington ... ..	30	20	10	30	—	—
Corston ... ..	6	—	6	6	—	3
Kelston ... ..	10	10	—	10	—	—
Keynsham (with Chewton Keynsham)	43	39	4	43	—	5
Whitchurch ... ..	9	4	5	9	—	—
Marksbury ... ..	1	—	1	1	—	2 rebuilt
Compton Dando ...	11	11	—	11	—	—
TOTALS ...	110	84	26	110	—	10



**TABLE D.** (required by County Medical Officer of Health ):—  
**Housing.**

- 1.—Sanitary District, Keynsham Rural.
- 2.—Number of houses in the Sanitary District under £16 per ann. rental, 1,723.
- 3.—New houses erected during 1913 in the part under Rural Bye-laws, 3, including 2 rebuilt at Marksbury, 1 Saltford new in part under Urban Bye-laws.
- 4.—Number of houses inspected during 1913, under the Housing Act, 1909 (this must *not* include re-inspections of houses previously inspected), 74.
- 5.—Results of inspections of the fresh houses inspected during 1913, classified as follows :—
  - (a) Number reported as unfit for human habitation, nil.
  - (b) Number defective, but with defects not sufficient to report as unfit for habitation, 73.
  - (c) Number without recorded sanitary defects, 1.
- 6.—Action taken and results in regard to houses reported as unfit during 1912 and 1913 as follows :—

	1912	1913
Number so reported ... ..	3	nil
Closing Order made ... ..	3	nil
Made fit without a Closing Order ...	nil	nil
Still unfit, but no Closing Order made ...	nil	nil
Demolished ... ..	nil	nil
Put in repair after Closing Order ...	2	nil
Still closed at end of 1913 ... ..	nil	nil

- 7.—Action taken with regard to defective houses, but not sufficient to report as unfit, as follows :—

For houses first examined during 1911, 1912, 1913 ... ..	531
Number so examined ... ..	—
*Number with the defects remedied by end of 1913 ... ..	206
Number still defective at end of 1913 ...	325
Number not yet visited to ascertain if defects are remedied ... ..	—

- 8.—Parishes in which there is evidence of shortage of houses, and steps taken to remedy

No special shortage evident.

\*Many houses are partly repaired at Priston, Marksbury, and Corston, but not sufficiently to record as "defects remedied," these are not included in this figure.

JOHN C. HEAVEN, D.P.H., etc.,  
*Medical Officer of Health.*

From Table **A**, it will be seen that no house among the 74 inspected this year was found unfit for habitation.

The three cottages at Swinford reported unfit and for which closing orders were made in 1912, have had some repairs done but not such as to render them fit. The question of purchase of these cottages by the Council and their demolition and replacement by others built by the Council was under consideration ; an offer was made by the owner to sell but the price asked was not acceptable and the matter was not decided at the end of the year.

From Table **B** it will be seen that in all but one of the houses there dealt with some repair or alteration of greater or less importance was required. In most instances the defects were minor defects of roofs, guttering, walls, flooring, or shaky staircases and bedroom floors.

VENTILATION on the whole is fair ; there were very few houses without some through ventilation, and not many windows that did not open. The chief lack of ventilation was caused by the absence of fireplaces in bedrooms. 71 or nearly half of the bedrooms had none ; this was met either by requiring provision of fireplace, or of ventilation over the door, or in other ways.

DAMPNESS was fairly frequently met with ; often it was due to defective roof, or absence of guttering, to defective pointing of walls, or in a good many instances to ground resting against outside walls.

ACCOMMODATION :—Speaking generally, there does not seem to be any great lack of houses. Chewton Keynsham, on the whole, shows the best housing conditions, the houses being mostly well built and arranged, indeed, some of them would form excellent models for future buildings. What appears to be wanted, generally, is not so much more houses, but a rearrangement of occupiers ; one often found one or two persons in a cottage which would accommodate a good family and *vice versa*. These better cottages, however, would have a higher rent, and the larger a man's family, the less able is he to pay high rent, he has, therefore, to crowd into a low rent cottage. The existence of 64 houses (out of the 74 examined) with two or less bedrooms, is regrettable, as this often leads to moral over-crowding : no domestic dwelling should, in future, be sanctioned, which has not at least three bedrooms.

OVERCROWDING.—In only 4 of the 74 houses examined was there physical overcrowding, allowing 300 cubic feet to each adult in bedrooms. In 3 cases the overcrowding was abated, and the fourth is in hand. With regard to what may be termed moral overcrowding, where older children sleep with or in the same room as their parents, or where big boys and girls, or even grown-up sons and daughters, occupy the same bedroom, the conditions are very different ; such cases are far too frequent. It is, however, difficult to see how they can be obviated where there is a large family and only two bedrooms, and the householder either cannot afford to pay a higher rent for a larger cottage or there is none to



which he can remove. The condition often arises when children are old enough to go to work and still live with their parents. There is, of course, no power under the Public Health Acts by which moral overcrowding can be dealt with ; so long as there is sufficient cubic space one is unfortunately powerless to interfere.

My opinion on the whole matter of accommodation and overcrowding was stated on p. 22 of my report for 1911.

**SANITARY CONVENIENCES**—Taken on the whole, there seems to be no very serious lack of these, though in many cases the situation and construction of privies, drains, and cesspools have called for alteration and amendment. As far as possible Dry Privies are being substituted for Cesspit Privies in the really rural parts : 11 new Dry Privies have been made and 6 Cesspit Privies converted into Dry Privies.

The following account of work done or in hand has been supplied me by your Inspector :—

**Brislington.** A good percentage of houses inspected 1912-1913 repaired.

**Corston.** Three cottages have been demolished, one next to School and two opposite Post Office.

**Compton Dando.** The Church Property Cottages, repairs of which were commenced 1912, completed in 1913, as in Table C.

**Kelston.** Mill cottages repaired, and an extra spring of water added to the water supply for these cottages. Hope piping will be extended closer to cottages soon.

**Keynsham & Chewton Keynsham.** A good percentage of houses inspected 1912-1913 repaired.

**Marksbury.** Two cottages practically re-built and one next to them extensively repaired ; a good deal of general repairs, &c., carried out (Mr. Wall, the builder, says they have spent over £300 at Marksbury in reconstruction and repairs, 1913) ; 6 wells protected.

**Northstoke.** Repairs only just started, but agent has promised to get on with them.

**Priston.** Principally outside work, roofs, main walls, &c.

**Whitchurch.** Repairs started ; some carried out in 1913. Four cottages belonging to Earl Temple, opposite Black Lion Inn, inspected and repaired without notice ; these are made into two fair-sized cottages.

The six houses in the Labbat for which closing and demolition orders were made in 1912 were pulled down and 3 new cottages built in their place.

### **Dairies, Cowshed and Milkshops.—**

A.—Number of persons entered on the Register ... 64.

B.— „ Cowkeepers „ „ ... 52.

C.— „ Inspections made during the year ... 234.

D.—is the Register complete. As far as is known. It is quite impossible to answer this question accurately, as it is the duty of anyone carrying on the milk trade to come to the Sanitary Authority and request to be registered. If they do not, naturally they are not registered, and although occasionally one finds that an unregistered person is trading, it is quite possible for several to escape registration or detection. The Inspector reports:—  
“The number of dairymen, &c., varies to some extent. The names are continually changing. The Register is complete as far as we can make it.”

KEYNSHAM.—Two cowsheds at the Lays Farm have been re-floored, drained, ventilated and lighted, yard re-surfaced and steam-rolled.

NEWTON-ST.-LOE :—One cowshed at Manor Farm re-floored and drained. Others to be done.

PRISTON.—One cowshed for which plans were deposited in course of construction.

BRISLINGTON.—Two cowsheds at Flowers Hill Farm re-floored and channelled. All on this farm is in excellent condition.

No action in causing examination of cows for Tuberculosis by Veterinary Surgeons has been taken.

### **Slaughter-Houses.—**

Number Licensed	...	2	} Total, 8.
„ Registered...		6	

Inspections made, 182.

Several of these premises are not well-fitted for the purpose, but, as they cannot be licensed, we can only try to have them reasonably kept. Some are, however, quite reasonably good and well kept. They are not visited specially at times of slaughtering. The Inspector holds no special certificate in meat inspection.

**Bakehouses.**—Number, 10. Condition, fair. No underground bakehouses. Whitewashing carried out.

**Bye-Laws and Urban Powers.**—No fresh powers obtained this year. Present bye-laws work fairly and are enforced. A special committee is now considering the building bye-laws in the light of the recent circular of the Local Government Board, suggesting that they would be prepared to consider modifications of the original strict requirements.



# SPECIAL ACTS, URBAN POWERS, BYE-LAWS, AND REGULATIONS IN FORCE IN THE DISTRICT.

**Special Acts.** Infectious Disease Prevention Act, and Public Health Acts Amendment Act, so far as they apply to Rural Districts.

Public Streets Act, 1892, for road at Keynsham.

**Urban Powers.** Powers under Secs. 155, 157, 158, P.H.A., 1875, as to new streets and buildings.

Under Sec. 25, P.H.A., as to house without drain.

Under Building in Streets Act, 1888, Sec. 3.

Under P.H.A. Amendment Act, 1890, Sec. 23.

Under P.H.A., Secs. 112, 113, 114, as to offensive trades.

Under P.H.A., Sec. 26, as to building over sewers.

Under P.H.A., Sec. 150, for certain streets.

Under P.H.A., Sec. 44, as to cleansing of footways, pavements, removal of house refuse, cleansing of earth closets, privies, ashpits, and cess-pools.

Power as to numbering houses throughout the district.

In force in Parishes of Keynsham and Brislington.

**Bye-laws and Regulations.** Bye-laws imposing duty of removal of refuse on occupiers, save in Keynsham and Brislington where it is collected under contract.

Bye-laws with regard to nuisances from snow, filth, dust, ashes, and rubbish, and prevention of keeping animals on premises so as to be injurious to health, in force in Keynsham and Brislington.

Model Bye-laws for Slaughter Houses apply in Keynsham and Brislington.

Bye-laws for cleansing dry privies approved and in force.

Model Bye-laws for New Streets and Buildings in force in Parishes of Keynsham and Brislington.

Bye-laws regulating erection of new buildings in force in the remaining parishes.

Regulations under Dairies, Cowsheds, and Milkshops Order sanctioned and in force.

Regulations as to connection of drains with sewers.

**Factory and Workshops Act.**—This Act has, at present, only a slight application to the district. There was one factory at Keynsham on the register, which has recently been closed, and 1 workshop, both have been inspected. A large Jam Factory is being erected in Brislington. So far as I am aware, no complaint has been received from the Factory Inspector.

## **SCHOOLS.**

As Medical Inspector of School Children (under the Somerset County Council), for the Keynsham area, I have visited all the schools in your district during the year, and have medically examined such children as the County Council has desired, viz. : all children admitted to school and not previously examined, girls and boys of 7 to 8, and girls and boys aged 12 and upwards not previously examined ; also such children as were referred to me by the teachers as, in their opinion, requiring medical examination. I have also seen a number of children who have in previous years been found to have defects, and in many cases there has been improvement or cure, resulting from medical treatment sought as result of advice given on inspection.

The number of children seen in 1913 is 505 for routine examination, and at least 47 for special reasons, or because they had been previously noted as defective.

The number of schools is 13, but in three instances, at Keynsham and Newton-St.-Loe and Brislington, there are separate premises for infants. In all other cases children of all ages are taught in the same building.

The schools themselves, with the exception of the comparatively modern Keynsham Infant School and the new Infant School at Brislington, are the Old Church, or National Schools, and speaking generally, fall far short of modern ideas of school buildings. They are old, their arrangement, lighting, ventilation, warming, cleanliness, style of desk, arrangement of desk with regard to light, and in many instances, the cloak-room accommodation require greater or less improvement. The attention paid to cleanliness of Schools is chiefly conspicuous by its absence. In several cases, beams, &c., thick with dust, or dust clinging to inequalities in the walls, were noticed. Floors too, though their condition varied in different schools, were far from clean. It seems the custom that they should be scrubbed once a term, and dry sweeping is resorted to in the intervals. It is obvious that such measures are insufficient—if even an attempt at cleanliness is to be made there should be a weekly scrubbing and a daily sweeping with wet sawdust. Expense is of course the excuse urged. I think it possible that a communication from the County Education Committee to the various school managers, pointing out the necessity for cleanliness of floors, &c., and stating reasonable requirements which must be complied with, might do good, and I should like to suggest that such a communication be sent. The sanitary arrangements, especially in the more rural schools, are, in many cases, capable of



improvement, but as no actual nuisance arising from them can be alleged, no legal pressure can be exercised in securing amendments. In some instances, however, the sanitary conveniences are good.

At Whitchurch, a new School is being erected by the County Council, and will I understand be in use early in 1914. A new school was badly wanted here as the old one was one of the worst in the district.

The County Council Infant School at Brislington, has come into use this year: it is quite up-to-date and the removal of infants from the old school will allow of improvement in the arrangements there. Before long however the accommodation for the boys and girls will probably require renewal.

The defects met with during examinations were of the usual character. No case of obvious Tuberculosis of lungs or glands came under observation. I am pleased to note that there is a general improvement in the cleanliness of heads, except in two villages where the prevalence of this disease of neglect is a disgrace to the parents. It would be a very good thing if the School Nurse could visit these villages and, if the circumstances warranted it, the prosecution of a parent or two would probably bring the others to a sense of their responsibility in this matter.

### **School Closure.—**

No school was closed by the District Council during the year. The following were closed by the County Education Authority:—

KEYNSHAM INFANT :—Closed on account of Measles for 3 weeks from 27th January.

PRISTON :—Closed on account of Measles for 14 days from 7th January, and again for 14 days from 15th February.

SALTFORD :—The Christmas holiday was extended on account of Measles to 20th January.

NEWTON-ST.-LOE :—Closed on account of Measles from 20th May to 13th June.

EXCLUSION OF SCHOLARS.—Notices are sent to the School attended by any case of Diphtheria, or Scarlet Fever, requiring exclusion of the patient and other children from the same house till disinfection has been carried out.

Notice of exclusion of known cases of Measles, Whooping Cough, Chickenpox, and Mumps, have been sent to Schools in addition to those for Diphtheria and Scarlet Fever.

**Surveyor's Report.**—From this Report (page 36) it will be seen that only 18 plans for new houses in the Parishes of Keynsham, Brislington, and Whitchurch have been submitted to the Council during the year. This is a very small number compared with former years, though for the last few years the

number has tended to decrease. Of these 18 plans, 17 were approved and 1 disapproved. It will also be seen that Keynsham sewerage has been and will be extended.

### **Matters requiring attention :—**

MARKSBURY WATER SUPPLY.

PRISTON WATER SUPPLY.

ISOLATION HOSPITAL.—As frequently pointed out previously, the usefulness of this Hospital is greatly curtailed by inability to isolate more than one disease at a time, and as the district, at all events in its western part, has become practically urban and co-terminous with Bristol, the occasions when isolation of more than one disease is asked for, and really required, are increasing and will continue to increase. It is, in my opinion, desirable that the question of increased accommodation and re-arrangement of staff should be referred to the Hospital Committee for consideration.

INSPECTOR OF NUISANCES.—The very great increase of work which has during the last few years devolved upon this officer renders it almost impossible for him, especially during pressure of infectious disease, to carry out his duties as he would wish to carry them out, and it appears to me that the time has come for the Council to seriously consider the advisability of relieving him of some of the routine work, thus leaving him free to pay the required attention to the more specialised and skilled portion of his duties. The appointment of a whole or part time man to work under the Inspector's direction would, I am convinced, be greatly to the advantage of the district.

During the year the usual quarterly reports, as well as other reports as to special matters—Infectious outbreaks; Circular-headed "Schemes of Institutional Treatment of Tuberculosis; the Public Health Tuberculosis Regulations, 1912;" special report on Diphtheria at Brislington to the Local Government Board; notification of Ophthalmia Neonatorum; various water samples, &c., have been presented, and my advice on matters coming before the Council has frequently been sought.

I desire to thank your Inspector and your other officers, as well as the medical men practising in the district, for their hearty co-operation and assistance during the past twelvemonth.

JOHN C. HEAVEN, D.P.H.,

*Medical Officer of Health.*



# Inspector of Nuisances Report,

## For the Year 1913.

*Keynsham, Somerset.*

No. of Complaints received during the year ...		146
No. of Houses, Premises, &c., inspected ...	{ under P.H. Acts ...	324
	{ under H. & T.P. Act ...	74
No. of Re-visits to see that work has been carried out, or for other reasons ...		230
Housing re-visits ...		316
<b>Results of Inspection</b>	No. of Houses or Premises cleansed, repaired, or W. washed under P.H. Acts ...	106
	No. of Orders issued for Sanitary Amendment of Houses or Premises (not Housing) ...	6
	No. of Houses disinfected, or to which disinfectants were supplied ...	91
	No. of Infectious cases visited ...	110
	Tuberculosis " ...	26
	No. of Visits to infectious cases notified and not notified ...	420
	Out-Patients visited ...	15
<b>Sewers</b>	No. of New Sewers laid down by Builder ...	1
	No. of Sewers cleansed or repaired ...	4
<b>House Drains</b>	No. repaired or cleansed ...	6
	No. relaid (piped) ...	4
	No. trapped or ventilated ...	10
	No. of New Pipe Drains laid ...	21
	No. of other New Drains laid ...	2
<b>Privies, Cesspools, and W.C's</b>	No. of Privies cleansed and reconstructed ...	Nil
	No. of Cesspools cleansed or reconstructed ...	3
	No. of Cesspools closed ...	6
	No. of New Cesspools ...	1
	No. of New W.C's ...	10
	No. of W.C's, New Pans and Repairs ...	15
	No. of Dry Privies constructed ...	11
<b>Water Supply</b>	No. of Dry Privies converted from Cesspit Closets ...	6
	No. of Samples of Water taken for analysis ...	26
	No. of Wells closed ...	3
	No. of <i>Old</i> Houses supplied with Company's Water ...	10
	No. of New Wells ...	1
	No. of New Cisterns (soft water) ...	Nil
<b>New Houses</b>	No. of Wells or Cisterns cleansed or repaired ...	2
	No. of New Houses certified as fit for habitation ...	*1
	No. of such Houses supplied with Company's Water ...	1
No. of such Houses supplied with Wells or Cisterns ...		Nil
No. of Dairies, &c., inspected ...		64
No. of Bakehouses inspected ...		10
No. of Slaughter-houses inspected ...		8
No. of Factories inspected ...		1
No. of Workshops inspected ...		1
Overcrowding (cases of) reported ...		4
" " abated ...		3
No. of Legal Proceedings ...		Nil

(Signed) GEORGE WATTS, A.S.I.

\*The Inspector only certifies houses in those parts of the District where Building Bye-laws are in force, but where the Surveyor has no control, so that 1 does not represent the total number of New Houses occupied during the year ; the number of W.C's applies to the same area only.

# Keynsham Rural District Council.

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## SURVEYOR'S ANNUAL REPORT.

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*March 3rd, 1914.*

GENTLEMEN,

Plans for the erection of 17 houses have been approved, and one plan was disapproved.

14 houses have been completed during the year, and drains of 18 houses have been tested.

The sewer in Albert Road, Keynsham (about 633 yards), is being laid and will be completed early in 1914. An extension of about 100 yards has being made to the sewer in Avon Mill Lane, Keynsham.

The Keynsham and Brislington sewers have given satisfaction throughout the year and the Brislington sewer syphons beneath the brook are working well.

Power has been obtained to make up Hollywood Road.

One petroleum license has been granted.

Your obedient servant,

HENRY M. BENNETT.



TABLE I.

KEYNSHAM RURAL.

Vital Statistics of Whole District during 1913 and previous years.

YEAR	Population estimated to Middle of each Year	BIRTHS			TOTAL DEATHS REGISTERED IN THE DISTRICT		TRANSFERABLE DEATHS		NET DEATHS BELONGING TO THE DISTRICT			
		Un-corrected Number	Net		Number	Rate	of Non-residents registered in the District	of Residents not registered in the District	Under 1 Year of Age		At all Ages	
			Number	Rate					Number	Rate per 1,000 net Births	Number	Rate
I	2	3	4	5	6	7	8	9	10	11	12	13
1908	9063	212	212	22'95	143	15'48	6	7	26	122'64	144	15'58
1909	9179	213	213	23'20	124	13'40	6	8	15	70'42	126	13'72
1910	9295	213	213	22'91	124	13'33	10	4	26	122'06	118	12'69
1911	10192	222	217	21'29	127	12'46	10	4	15	67'55	121	11'83
1912	10403	205	203	19'51	120	11'53	17	6	15	73'17	109	10'58
1913	10617 (for 53 weeks 10820).	181	176	14'33 "standard-ised"	130	12'01	17	7	12	68'18	120	9'69 "standard-ised"

Area of District in acres (exclusive of area covered by water), 21,406.

Total population at all ages (at Census of 1911), 10,141.

Number of inhabited houses not known ; and average number of persons per house not known (at Census of 1911).

**TABLE II.**Cases of **Infectious Disease** notified during the Year **1913.**

NOTIFIABLE DISEASE	NUMBER OF CASES NOTIFIED.								TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages	At Ages—Years							
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and up- wards	
Small-pox ... ..	...	...	...	...	...	...	...	...	...
Cholera, Plague ... ..	...	...	...	...	...	..	...	...	...
Diphtheria(including Membranous croup)	48	...	7	30	5	6	...	...	32
Erysipelas ... ..	3	...	...	...	...	3	...	...	...
Scarlet fever ... ..	58	...	9	44	4	1	...	...	19
Typhus fever ... ..	...	...	...	...	...	...	...	...	...
Enteric fever ... ..	1	...	...	...	1	...	...	...	...
Relapsing fever ... ..	...	...	...	...	...	...	...	...	...
Continued fever ... ..	...	...	...	...	...	...	...	...	...
Puerperal fever .. ..	...	...	...	...	...	...	...	...	...
Cerebro-spinal Meningitis ... ..	...	...	...	...	...	.	...	...	...
Poliomyelitis ... ..	...	...	...	...	...	...	...	...	...
Pulmonary Tuber- culosis ... ..	25	...	...	3	3	18	1	...	...
Other forms of Tuberculosis ... ..	9	1	2	3	3	...	...	...	...
Totals ... ..	144	1	18	80	16	28	1	...	51

Isolation Hospital or Hospitals, Sanatoria, &c. Keynsham Isolation Hospital,  
in Keynsham Parish, provided by Keynsham District Council.



**TABLE III.**

Causes of, and Ages at, Death, during the Year 1913.

CAUSES OF DEATH  I	NET DEATHS AT THE SUBJOINED AGES OF "RESIDENTS," WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									Total Deaths, whether of "Residents" or "Non-Residents" in Institutions in the District.
	All ages	Un- der 1 year	1 and und'r 2 yrs.	2 and und'r 5 yrs.	5 and und'r 15 yrs.	15 and und'r 25 yrs.	25 and und'r 45 yrs.	45 and und'r 65 yrs.	65 and up- wards	
	2	3	4	5	6	7	8	9	10	
All { certified causes { uncertified }	120	12	1	2	6	4	15	23	75	26
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...
Smallpox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	4	1	1	1	1	...	...	...	...	...
Scarlet fever ...	...	...	...	...	...	...	...	...	...	...
Whooping-cough ...	...	...	...	...	...	...	...	...	...	...
Diphtheria & Croup	2	...	...	...	2	...	...	...	...	2
Influenza ...	1	...	...	...	...	...	...	1	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis) ...	8	...	...	...	1	2	3	2	...	1
Tuberculous Menin- gitis...	1	...	...	1	...	...	...	...	...	...
Other Tuberculous diseases...	1	...	...	...	1	...	...	...	...	...
Cancer, malignant disease...	7	...	...	...	...	...	1	2	4	...
Rheumatic Fever ...	1	...	...	...	...	...	...	...	1	...
Meningitis ...	1	...	...	...	...	...	1	...	...	...
Organic Heart di- sease ...	19	...	...	...	...	1	...	5	13	7
Bronchitis ...	11	1	...	...	...	...	1	3	6	...
Pneumonia, all forms	4	...	...	...	...	...	1	1	2	3
Other diseases of respiratory organs	1	...	...	...	...	...	...	1	...	...
Diarrhœa and Enteritis...	...	...	...	...	...	...	...	...	...	...
Appendicitis and Typhlitis...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of liver ...	1	...	...	...	...	...	1	...	...	...
Alcoholism ...	...	...	...	...	...	...	...	...	...	...
Nephritis & Bright's disease...	3	...	...	...	...	...	1	...	2	...
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...
Other accidents and diseases of preg- nancy & parturition	1	...	...	...	...	...	1	...	...	...
Congenital Debility and Malformation, including premature birth ...	6	6	...	...	...	...	...	...	...	...
Violent deaths, ex- cluding Suicide ...	3	...	...	...	1	...	1	...	1	1
Suicides ...	...	...	...	...	...	...	...	...	...	1
Other defined diseases...	45	4	...	...	...	1	4	8	28	11
Diseases ill-defined, or unknown ...	...	...	...	...	...	...	...	...	...	...
	120	12	1	2	6	4	15	23	57	26

TABLE IV.

KEYNSHAM RURAL SANITARY DISTRICT.

INFANT MORTALITY during the Year, 1913.

Net Deaths from stated Causes at various Ages under One Year of Age

CAUSE OF DEATH.				Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths under One Year
ALL CAUSES :—													
Certified	...	...	...	7	...	...	...	7	2	2	1	..	12
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	..	...	...	...	...	...	...	...	1	...	...	...	1
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	..
Diarrhœa	...	...	}	...	...	...	...	...	...	...	...	...	...
Enteritis	...	...		...	...	...	...	...	...	...	...	...	...
Gastritis	...	...		...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth	...	...	...	6	...	...	...	6	...	...	...	...	6
Atrophy, Debility, and Marasmus	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (Not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	1	...	...	...	1	...	...	1	...	2
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	...	...	...	1	...	...	1
Pneumonia (all forms)	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlaying	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes	...	...	...	...	...	...	...	...	1	1	...	...	2

Net Births in the year { legitimate, } 176  
 { illegitimate, }

Net Deaths in the year of { legitimate infants, } 12  
 { illegitimate infants, }